

Amendments to the Claims:

1. (currently amended) A ~~Nucleic~~ nucleic acid molecule encoding comprising a nucleotide sequence which encodes an engineered protein having comprising an amino acid sequence which differs from the amino acid sequence of a native protein by at least one essential amino acid residue, wherein said engineered protein has an altered amino acid composition in comparison to said native protein, wherein said altered amino acid composition comprises an increase in essential amino acid content to at least about 5% ~~has been altered by introducing amino acid changes into said protein, and~~ wherein said engineered protein retains the conformation of the native protein and therefore binds to an at least one interacting molecule antibody, monoclonal antibody, antibody fragment, protein, or modified protein which is capable of binding with a to said corresponding native protein, wherein said native protein is VSP α or VSP β .

2. (currently amended) The ~~nucleotide sequence~~ nucleic acid molecule of claim 1, wherein said altered amino acid changes composition comprises an increase in the levels of at least one essential amino acid content to at least about 10% in the protein.

3. (currently amended) The ~~nucleotide sequence~~ nucleic acid molecule encoding of claim 2 1 wherein said altered amino acid composition comprises an increase in the content of an essential amino acid is selected from the group consisting of methionine, tryptophan, lysine, valine, phenylalanine, isoleucine, leucine, threonine and cysteine.

4. (canceled)

5. (currently amended) A transformed plant containing within its genome the nucleotide sequence of Claim 2 1.

6. (original) A transformed plant containing within its genome the nucleotide sequence of Claim 3.

7. (currently amended) ~~A transformed~~ The plant of claim 5, wherein said plant is a monocot containing within its genome the nucleotide sequence of Claim 4.

8. (currently amended) A stably transformed plant having inserted into its genome a nucleotide sequence which encodes chimeric gene said gene encoding an engineered protein comprising an amino acid sequence which differs from the amino acid sequence of a native protein by at least one essential amino acid residue having altered amino acid composition wherein said protein, wherein said engineered protein has an altered amino acid composition in comparison to said native protein, wherein said altered amino acid composition comprises an increase in essential amino acid content to at least about 5% and wherein said engineered protein retains the conformation of the native protein and therefore binds to an interacting molecule at least one antibody, monoclonal antibody, antibody fragment, protein, or modified protein which binds with is capable of binding to said a corresponding native protein, wherein said native protein is VSP α or VSP β .

9. (currently amended) The plant of Claim 8, wherein said altered amino acid changes composition comprises an increase in the levels of at least one essential amino acid content to at least about 10% in the protein.

10. (currently amended) The plant of Claim ~~[[9]]~~ 8, wherein said altered amino acid composition comprises an increase in the content of an essential amino acid ~~[[is]]~~ selected from the group consisting of methionine, tryptophan, lysine, ~~valine, phenylalanine, isoleucine, leucine, threonine~~ and cysteine.

11. (currently amended) The plant of Claim [[10]] 8, wherein said altered amino acid composition comprises an increase in methionine content to at least about 10% ~~essential amino acid is increased to represent 5% of the total amino acid content of the protein.~~

12. (currently amended) The plant of Claim [[10]] 8, wherein said altered amino acid composition comprises an increase in methionine content to at least about 20% ~~essential amino acid are increased to represent 10% of the total amino acid content of the protein.~~

13. (canceled)

14. (original) The plant of Claim 8, wherein said plant is a dicot.

15. (original) The plant of Claim 8, wherein said plant is a monocot.

16. (original) The plant of Claim 15, wherein said monocot is maize.

17. (currently amended) The plant of Claim [[15]] 14, wherein said dicot is soybean.

18. (currently amended) Seed A transformed seed of the plant of Claim 8.

19. (currently amended) Seed A transformed seed of the plant of Claim 15.

20. (currently amended) Seed A transformed seed of the plant of Claim 16.